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MORTON, Elizabeth Whitman

The discovery of anaesthesia.  
McClure's Mag., September 1896.

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## THE DISCOVERY OF ANÆSTHESIA.\*

DR. W. T. G. MORTON AND HIS HEROIC BATTLE FOR A NEW IDEA.—HOW PAINLESS SURGERY BEGAN FIFTY YEARS AGO.

BY ELIZABETH WHITMAN MORTON.



Y husband, whose full name was William Thomas Green Morton, was born in Charlton, Massachusetts, August 19, 1819. The family house stood on a farm of about one hundred acres, and was an old-fashioned wooden structure with an immense stone chimney in the centre. It was shaded by old trees, and covered by creepers and climbing plants. It was a typical New England farm-house, and the boy grew up among wholesome surroundings, gaining a strength of body that served him in the severe strain of later years. Curiously enough, even at an early age his mind turned naturally toward medicine, and he was nicknamed "doctor" by his playmates, for whose imaginary ills he used to prescribe learnedly from an outfit of elder-tree vials and bread pills. On one occasion he nearly caused the death of his little sister by pouring down her throat some extraordinary concoction of his own, while she lay asleep in her cradle. The instruction he received was imparted in the schools of his native town and at the neighboring academies of Leicester and Northfield, where he studied hard for three years, leaving at the age of seventeen, when he went to Boston to begin earning his living. Here he gained employment in the publishing house of the editor of the "Christian Witness," James B. Dow, whose beautiful wife took a great interest in him and arranged that he should live with them. Both Mr. and Mrs. Dow showed themselves staunch friends to the

\* It will be fifty years on the 16th of next October since Dr. Morton publicly proved his priceless discovery, and the jubilee of the event is to be duly celebrated in Boston. This gives a special timeliness to Mrs. Morton's paper, the only intimate personal account of Dr. Morton's labors and trials ever published.—EDITOR.

young man, and recognized his unusual talents. The friendship was maintained to the end of Dr. Morton's life. Kind as they were to him, however, he soon became dissatisfied, his duties allowing him little time for study, which was his great ambition. So devoted was the boy to books that all his leisure moments were spent in reading. A few months of this busy life convinced him that he could never be happy in that way of existence, and, uncertain what to do and homesick, he went back to his father's house in Charlton. He then concluded to study dentistry, which at that time had attained the dignity of a respected profession.

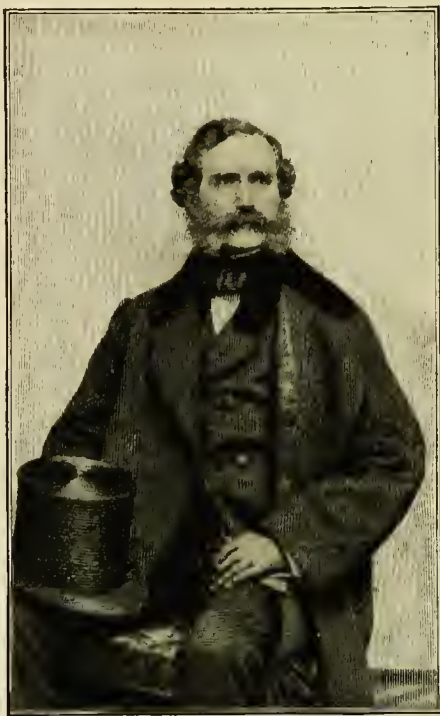
His success was rapid. In 1844, two years after his graduation at the Baltimore College of Dental Surgery (the first dental college established in America), he was earning from his profession an income of about ten thousand dollars, being already recognized as one of the most skilful dental surgeons in Boston. He had established himself in Boston a little before our marriage, I being a young girl of seventeen, just out of Miss Porter's school at Farmington, Connecticut, where my father lived. For a year before, Dr. Morton had paid me attentions, which were not well received

by my family, he being regarded as a poor young man with an undesirable profession. I thought him very handsome, however, and he was much in love with me, coming regularly from Boston to visit me. I learned later on that from the first day he saw me he had determined to marry me if he could, and after his death I found in an old diary of that year an entry written just after my first meeting with him, where he expressed his intention of making me his wife, and even noted the gown and hood I wore. In my eighteenth year he took me from the fine

old homestead we lived in—quite an historic mansion it was, where John C. Calhoun had often visited my father's family—and brought me to Boston. My uncle Lemuel was then a classmate of Calhoun's in Yale, and later on a member of Congress from Connecticut. Two others of my Whitman ancestors, father and son, were graduated at Harvard, one in 1668, and the other in 1696. The son settled in Farmington as one of the earliest ministers.

Dr. Morton was one of those tremendously earnest men who believe they have a high destiny to fulfil. How many times

he said to me in the months preceding his great discovery: "I have a work to do in this world, Lizzie!" Or, again: "The time will come when I will do away with pain!" During our early married life, while he was making himself known as one of the most skilful dentists in Boston and carrying on an enormous business, he found time in addition to pursue his medical studies at the Harvard Medical School, in order to take a medical degree, for he had promised my mother to give up dentistry. Every morning he used to rise between four and five o'clock to get time for what he called his serious work; and never shall I forget my sensation as a young bride



DR. WILLIAM T. G. MORTON.

From a photograph taken in 1854 by Silsbee, Case & Co., Boston, Massachusetts.

at sleeping in a room where a tall, gaunt skeleton stood in a big box near the head of the bed. After the first successful use of the sulphuric ether, the immense responsibilities that came upon him, and the unceasing anxiety and annoyances, compelled him to give up the study of medicine and devote himself to anæsthesia. This was a great grief to him, because he was at that time within a few months of taking his degree.

At the time of our marriage Dr. Morton was twenty-four years old, and, as I have said, his mind was already occupied with



thoughts destined to lead to his discovery. Every spare hour he could get was spent in experiment. At Wellesley, Massachusetts, where was our summer home, there was a spring which contained a number of gold-fish, and I noticed that my husband would often go to it, and I would see him catching the fish and looking at them intently as if studying them as he held them wriggling in his hand. Then he used to make experiments nearly every day on "Nig," a black water-spaniel, a good-sized dog that had belonged to his father. I was only a girl of eighteen at this time, and

had not the least idea of what he was trying to do; nor would I have understood the importance of his experiments had he told me. I only knew that his clothes seemed always saturated with the smell of ether, and I did not like it. One day he came running into the house in great distress (for he was always tender-hearted), leading the dog, which walked rather queerly, and said:

"Poor Nig; I've had him asleep a long time. I was afraid I had killed him."

"Do you put the fish asleep, too?" I asked, laughing.

"I try to," he said, quite seriously, "but have not succeeded yet."

I laughed again, thinking it was all a joke, but my husband became very grave, and said:

"The time will come, my dear, when I will banish pain from the world."

It was at this time also that he used to bottle-up all sorts of queer bugs and insects, until the house was full of crawling things. He would administer ether to all these little creatures, and especially to the big green worms he found on grape vines.

I remember how Dr. Morton's friends laughed at these queer experiments, and I am afraid I joined with them sometimes. But he continued on his way undaunted, frequently saying: "I shall succeed; there must be some way of deadening pain."

As he began to near success I became



1 Dr. Henry H. J. Bigelow. 2 Dr. A. A. Gould. 3 Dr. J. Mason Warren. 4 Dr. John Collins Warren. 5 Dr. Morton. 6 Dr. Samuel Parkman. 7 Dr. Geo. Hayward. 8 Dr. S. D. Townsend.

DR. MORTON MAKING THE FIRST PUBLIC DEMONSTRATION OF ETHERIZATION AT THE MASSACHUSETTS GENERAL HOSPITAL, BOSTON, OCTOBER 16, 1846.

After a steel engraving published in "Trials of a Public Benefactor," by Nathan P. Rice, M.D.; Putney and Russell, Publishers, New York, 1859.

alarmed, for, not satisfied with trying the ether on bugs and animals, my husband began experimenting upon himself. He sent out his assistants offering a reward of five dollars to any person who would have a tooth drawn while under the influence of his pain-annulling agency. There were many people suffering from aching teeth which needed to be extracted, and the five dollars was an object; but no one could be induced to take the risk. Finally his two assistants allowed him to experiment upon them, but the result was not satisfactory, because of impurities in the ether. Having detected this, my husband, with characteristic persistence, at once procured a supply of pure ether, and, unwilling to wait longer for a subject, shut himself up in his office, and tested it upon himself, with such success that for several minutes he lay there unconscious. That night he came home late, in a great state of excitement, but so happy that he could scarcely calm himself to tell me what had occurred; and I, too, became so excited that I could scarcely wait to hear. At last he told me of the experiment upon himself, and I grew sick at heart as the thought came to me that he might have died there alone. He went on to say that he was resolved not to sleep that night until he had repeated the experiment, and declared that, late as it was, he must still find a patient. Returning to his office, he could find no one who could be induced to have a tooth

drawn by the "painless method," which was what the doctor was now so eager to demonstrate. Discouraged, he was on the point of etherizing himself once more, and having one of his assistants extract a tooth from his own head, when there came a faint ring at the bell.

It was long past the hour for patients, but there stood a man with his face all bandaged and evidently suffering acute pain. And strangest of all were his words.

"Doctor," he said, "I have the most frightful toothache, and my mouth is so sore I am afraid to have the tooth drawn. Can't you mesmerize me?"

The doctor could almost have shouted with delight, but, preserving his self-possession, he brought the man into his office and told him he could do something better than mesmerize him. Then he explained his purpose of administering the sulphuric ether, and the man eagerly consented. Without delay my husband saturated a handkerchief with ether, and held it over the man's face, for him to inhale the fumes. The assistant, Dr. Hayden, who held the lamp, trembled visibly when Dr. Morton introduced the forceps into the mouth of the man and prepared to pull the tooth. Then

came the strain, the wrench, and the tooth was out, but the patient made neither sign nor sound; he was quite unconscious.

Dr. Morton was overjoyed at the result. Then, as the man continued to make no movement, he grew alarmed, and it flashed through his mind that perhaps he had killed his patient. Snatching up a glass of water, he emptied it full into the face of the unconscious man, who presently opened his eyes and looked about him in a bewildered way.

"Are you ready now to have the tooth out?" asked the doctor.

"I am ready," said the man.

"Well, it is out now," said the doctor, pointing to the tooth lying on the floor.

"No!" cried the man in greatest amazement, springing from the chair, and, being a good Methodist, shouting, "Glory! Hallelujah!"

From that moment Dr. Morton felt that the success of sulphuric ether was assured. Thenceforward he was unceasing in his efforts to bring his discovery before the medical world, and, after many discouragements, he succeeded in inducing Dr. John C. Warren, senior surgeon in the Massachusetts General Hospital, to allow him to visit the hospital and try his discovery upon a patient who was about to be operated upon.

The night before the operation, my husband worked until one or two o'clock in the morning upon an inhaler he had devised, and then regarded as essential to the operation, although it has since been discarded. I assisted him, nearly beside myself with anxiety, for the strongest influences had been brought to bear upon me to dissuade him from making this attempt. I had been told that one of two things was sure to happen; either the test would fail and my husband would be ruined by the world's ridicule, or he would

kill the patient and be tried for manslaughter. Thus I was drawn in two ways; for while I had unbounded confidence in my husband, it did not seem possible that so young a man (he was only twenty-seven years old at this time) could be wiser than the learned and scientific men before whom he proposed to make his demonstration.

After resting a few hours, Dr. Morton was off early in the morning to see the instrument-maker, for there were still changes necessary in the inhaler. From that moment I saw nothing of him for twelve hours, which were hours of mortal anxiety. How they dragged along as I sat at the



ELIZABETH W. MORTON, WIFE OF DR. MORTON.

From a photograph taken in Washington in 1862.





DR. AND MRS. MORTON AND THEIR CHILDREN AT THEIR SUMMER HOME AT WELLESLEY.

Drawn by Victor Perard from a photograph taken in 1856.

window, expecting every moment some messenger to tell me that the patient had died under the ether and that the doctor would be held responsible! Two o'clock came, three o'clock, and it was not until nearly four that Dr. Morton walked in, with his usually genial face so sad that I felt failure must have come. He took me in his arms, almost fainting as I was, and said tenderly: "Well, dear, I succeeded."

In spite of these words his gloom of manner and evident depression made it impossible for me to believe the good news. It seemed as if he should have been so highly elated at having accomplished one of the most splendid achievements of the century, and yet there he was, sick at heart, crushed down, one would have said, by a load of discouragement. This was due not only to bodily fatigue and the reaction after his great efforts, but to an intuitive perception of the troubles in store for him. It is literally true that Dr. Morton never was the same man after that day; his whole after life was embittered through

this priceless boon he had conferred upon the human race.

Of the three men now living who saw this first operation upon a patient under the influence of ether, one is Dr. Robert Davis of Fall River. He was then a medical student in Boston, and he has given me the description of what happened on this memorable occasion. The amphitheatre of the operating-room was crowded with members of the medical profession, doctors and students, all curious, and all skeptical, as to the outcome of the experiment to be made. All the great surgeons of Boston were present, including the celebrated Dr. Jacob Bigelow, whose son, Dr. Henry J. Bigelow, a young and enthusiastic surgeon of about Dr. Morton's age, was a warm friend of Dr. Morton's, and perhaps the only man present who had faith in him. It must be said, however, that he had more grounds for his belief than the others, since he had been privileged to witness some of my husband's previous tests with ether in private.

The hour for the operation arrived and Dr. Morton was not on hand. Five minutes passed, ten minutes, and then Dr. Warren, the eminent surgeon, looking around with a smile on his face, slightly sarcastic, suggested that, as Dr. Morton was not present, it might be well to let the operation go on in the usual way. The patient had meantime been brought in, and was lying on the operating-table deathly white, doubly apprehensive of what was to come. At that moment Dr. Morton came in, breathless from haste, carrying the inhaler, which had just been delivered to him by the maker and had nearly been the cause of the failure of the test.

Without any delay, and with a coolness and self-possession in strong contrast with the general nervous tension of the assembly, Dr. Morton proceeded to administer sulphuric ether to a human being, for the purpose of destroying pain by forced anæsthesia in a surgical operation, for the first time in the world's history. Pouring the liquid into the inhaler, he lifted the latter to the patient's nostrils, and held it there for some minutes, allowing the man to breathe the fumes. Then, looking into his face intently, and feeling the pulse, he turned to Dr. Warren, who stood near with his surgeon's knife behind him, and said, in a quiet tone that sounded plainly through the silence:

"Your patient is ready, doctor."

Then in all parts of the amphitheatre there came a quick catching of the breath, followed by a silence almost deathlike, as Dr. Warren stepped forward and prepared to operate. The sheet was thrown back, exposing the portion of the body from which a tumor was to be removed, an operation exceedingly painful under ordinary conditions, although neither very difficult nor very dangerous. The patient lay silent, with eyes closed as if in sleep; but every one present fully expected to hear a shriek of agony ring out as the knife struck down into the sensitive nerves. But the stroke came with no accompanying cry. Then another and another, and still the patient lay silent, sleeping, while the blood from severed arteries spurted forth. The surgeon was doing his work, and the patient was free from pain, so it seemed at least; and all in wonder strained their eyes and bent forward, following eagerly every step in the operation. Those in the front rows leaned far over or knelt on the floor, so that those behind might see better. The operation advanced quickly and easily to its finish. The tumor was taken away,

the arteries fastened with ligatures, the gaping wound sewed up, then dressed and bandaged. Half an hour covered the whole of it. During that time no cry or groan escaped the patient, no indication of suffering.

Dr. Morton aroused the patient after the operation was completed, and said, "Did you feel any pain?" The patient replied, "No." Then Dr. Warren, turning to the company, said in his impressive manner, "Gentlemen, this is no humbug." All pressed about Dr. Morton and congratulated him upon his success.

Many successful operations followed quickly. The hospital authorities, though, refused to make further use of the discovery, on the ground that they did not know the nature of the drug employed in inducing unconsciousness. My husband at once offered to give them full information on this point; but opposition had been aroused, and for several weeks operations at the hospital were performed by the old method of making the patient bear the torture.

Partly with a view to keeping his discovery out of the hands of persons who might use it unwisely, and acting upon the advice of Rufus Choate and Caleb Cushing, lawyers of national reputation, Dr. Morton patented his application of sulphuric ether; but he never enforced the patent, for his humanity was too great to keep back from suffering millions so precious an agency of relief. Yet he was criticised on all sides for taking out the patent, and cruel attacks were made upon him that cut him to the heart. At this time, it seemed to us who had to bear the brunt of these attacks that the value of this greatest of blessings, brought so suddenly and unexpectedly to the suffering, was lost sight of in the attempt to traduce the discoverer's character and motive. Abuse and ridicule were showered upon him by the public press, from the pulpit, and also by prominent medical journals, for presuming or daring to claim that he could prevent the pain of surgical operations. In those days I feared to look into a newspaper, for what wife does not feel more keenly unjust aspersions on her husband than he for himself? Then, too, the world's way—jealousy, malice, and envy—was new to me. Soon there sprang up contestants to Dr. Morton's title of discovery: men who claimed as theirs the work which he had accomplished with such infinite labor and for which he had hazarded life and reputation.



After the successful use of the sulphuric ether at the hospital, it became necessary to find a name for the new agent, and much discussion ensued. A meeting of physicians was called at the house of Dr. A. A. Gould, among those present being Dr. Oliver Wendell Holmes, Professor Agassiz, and Dr. Henry J. Bigelow, one of Boston's most eminent surgeons, who had encouraged Dr. Morton in his experiments at a time when many were in doubt or against him. Dr. Gould read a list of names that had been suggested, and on hearing the word "Letheon," my husband exclaimed: "That is the name; I want the discovery christened 'Letheon.'" Others were of the same opinion, but finally the suggestion of Dr. Holmes was accepted, and the word "anæsthesia" was chosen.

In spite of various efforts that were made during subsequent years to obtain recognition from the United States government of Dr. Morton's services to the country and to the world, nothing was ever done. This was, perhaps, the greatest sorrow of my husband's later years, a sorrow rendered all the more keen from the fact that other governments hastened to bestow upon him orders and decorations. Russia gave him the "Cross of the Order of St. Vladimir;" Norway and Sweden gave him the "Cross of the Order of Vasa;" and the French Academy of Arts and Sciences sent him a gold medal, the Montyon prize. What he regarded as his greatest treasure was a small silver casket containing one thousand dollars in money, and presented by the trustees of the Massachusetts General Hospital. This was given "in honor of the ether discovery, September 30, 1846." The casket, medal, and decorations are now in the Historical Rooms in Boston, as well as many original documents relating to the discovery, the medal, and the orders. In 1852 Dr. Morton received the honorary degree of Doctor of Medicine from his original alma mater, the Washington University of Medicine, afterwards merged into the College of Physicians and Surgeons, of Baltimore, Maryland.

During the war my husband served with Grant in the battle of the Wilderness, and with General Burnside at Fredericksburg, and had abundant opportunity to demonstrate the value of his discovery in the treatment of surgical cases on the battlefield. The following is an extract from one of his letters, written to a friend in May, 1864:

"When there is any heavy firing heard, the ambulance corps, with its attendants, stationed nearest to the scene of action starts for the wounded. The ambulances are halted near by, and the attendants go in with stretchers and bring out the wounded. The rebels do not generally fire upon those wearing ambulance badges.

"Upon the arrival of a train of ambulances at a field hospital, the wounds are hastily examined, and those who can bear the journey are sent at once to Fredericksburg. The nature of the operations to be performed upon the others is then decided upon, and noted on a bit of paper pinned to the pillow or roll of blankets under each patient's head. When this had been done, I prepared the patients for the knife, producing perfect anæsthesia in an average time of three minutes, and the operators followed, performing their operations with dexterous skill, while the dressers in their turn bound up the stumps."

Dr. John H. Brinton of Philadelphia, in a valedictory address to the graduating class of Jefferson Medical College of Philadelphia in 1892, relates an interesting incident from personal reminiscence.

"In the early summer of 1864, during the fierce contest in the Virginia wilderness, I was present officially at the headquarters of Lieutenant-General Grant, on whose staff I had previously served. When in conversation with him, an aide approached, and said to him that a stranger, a civilian doctor, wished to see him for the purpose of obtaining an ambulance, for his personal use in visiting the field hospitals. The answer of the general was prompt and decided: 'The ambulances are intended only for the sick and wounded, and under no circumstances can be taken for private use.' This response was carried, as given, to the waiting applicant, a travel-stained man, in brownish clothes, whom at the distance I thought I recognized. I went to him and found that he was Dr. W. T. G. Morton. I asked him to wait a minute, and returned to the general. On repeating his request, I received the same answer. 'But, general,' I ventured to say, 'if you knew who that man is, I think you would give him what he asks for.'

"'No, I will not,' he replied. 'I will not divert an ambulance to-day for any one; they are all required elsewhere.'

"'General,' I replied, 'I am sure you will give him the wagon, he has done so much for mankind, so much for the soldier—more than any soldier or civilian has ever done before; and you will say so when you know his name.'

"The general took his cigar from his mouth, looked curiously at the applicant, and asked, 'Who is he?'

"'He is Dr. Morton, the discoverer of ether,' I answered.

"The general paused a moment; then said, 'You are right, doctor, he has done more for the soldier than any one else, soldier or civilian, for he has taught you all to banish pain. Let him have the ambulance and anything else he wants.'

"Afterward, during his stay, by order of the general commanding, he was tendered the hospitalities of the headquarters, ambulance, tent, mess, and servant."

Now I come to the last days of my husband's life. On July 6, 1868, he left

Etherton Cottage for New York, to reply to an article that had recently appeared in one of the monthlies advocating Dr. Jackson's claim to be the discoverer of sulphuric ether. It was some time since anything of the sort had appeared, for medical journals the world over had admitted Dr. Morton's right to the discovery, and this article agitated him to an extent I had never seen before. The weather was very hot, and on July 11 he telegraphed me that he was ill and wished me to come to him. I went at once, and found he was suffering with rheumatism in one leg. Under the treatment of the distinguished Dr. Sayre, my husband improved, and on Wednesday, after dinner, he proposed we should drive to Washington Heights and spend the night there at the hotel, as a change from the hot city. We started about eight o'clock in the evening, Dr. Morton himself driving.

After a little he complained of feeling sleepy, but refused to give me the reins or to turn back. Just as we were leaving the Park, without a word he sprang from the carriage, and for a few moments stood on the ground, apparently in great distress. Seeing a crowd gathering about, I took from his pocket his watch, purse, also his two decorations and the gold medal. Quickly he lost consciousness, and I was obliged to call upon a policeman and a passing druggist, Dr. Swann, who assisted me. We laid my husband upon the grass, but he was past hope of recovery. We sent at once for a double carriage, but it was an hour before one came. Then two policemen lifted him tenderly upon the seat, I being unable to do anything from the condition I was in: the horror of the situation had stunned me, finding myself alone with a dying husband, surrounded by strangers, in an open park at eleven o'clock at night.

We were driven at once to St. Luke's Hospital, where my husband was taken in on the stretcher, and immediately the chief surgeon and house physicians gathered about him. At a glance the chief surgeon recognized him, and said to me: "This is Dr. Morton?"

I simply replied, "Yes."

After a moment's silence he turned to the group of house pupils, and said: "Young gentlemen, you see lying before you a man who has done more for humanity and for the relief of suffering than any man who has ever lived."

In the bitterness of the moment, I put my hand in my pocket, and taking out the three medals, laid them beside my hus-

band, saying: "Yes; and here is all the recompense he has ever received for it."

Dr. Morton died at the age of forty-eight. He was buried in Mt. Auburn Cemetery, near Boston, in the presence of many noted physicians of Boston. Over his grave stands a monument erected by the citizens of Boston, with this inscription, written by the late Dr. Jacob Bigelow of Boston:

"William T. G. Morton, Inventor and Revealer of Anæsthetic Inhalation. By whom pain in surgery was averted and annulled. Before whom in all time surgery was agony. Since whom science has control of pain."

Dr. Morton's recreation was work on his farm at Wellesley, the town which is now the seat of Wellesley College. He was always a great lover of nature. People did not interest him very much, and he cared little for clubs. Not long after our marriage he purchased from a brother of Edward Everett a small place at Wellesley, then West Needham, where we went to live in the spring of 1846, having built a new cottage, and where several of our children were born.

My husband loved his children and made companions of them. He taught his boys to shoot as soon as they were large enough to hold a revolver, and vied with them in target practice until they became experts. My second son, Edward, possibly influenced by this early training, served through the Zulu war in South Africa, as a member of the Cape Mounted Rifles, gaining the decoration of the Victoria medal. Two sons are practising physicians, and the two daughters are married. Our home at Wellesley was sold some years ago; a public library has been erected upon the site of our cottage, and the grounds are a public park.

It has been a great pleasure to me to know that within the last two years my husband's name has been enrolled upon the base of the dome in the new chamber of the House of Representatives in the State House in Boston, among the selected fifty-three of Massachusetts's most distinguished citizens. "The names have been selected in such a way that each shall either mark an epoch, or designate a man who has turned the course of events." In the outside walls of the new Public Library in Boston are thirty arches filled with memorial tablets, inscribed with about five hundred names of writers, artists, and scientists. In this "roll of honor" also is inscribed my husband's name.

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Morton, E.W.  
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anaesthesia.  
Call no. Morton

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IV



